

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see applicant's remarks, filed on 12/17/2008, with respect to the rejection(s) of claims 1-5 under 35 U.S.C § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Rosen (US PAT. 4,831,619) in view of Sherman et al. (US PAT. 6,021,309 hereinafter "Sherman").

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-5 are rejected under 35 U.S.C. 101 because the claims are directed towards non-statutory subject matter.

Consider claims 1-5, the language in the claim does not transform underlying subject matter (such as article or materials) to a different state or thing. The claim recited mental steps. To qualify as a 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied. Thus, claims 1-5 are rejected as non-statutory.

### ***Claim Rejections - 35 USC § 103***



Art Unit: 2618

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen (US PAT. 4,831,619) in view of Sherman et al. (US PAT. 6,021,309 hereinafter "Sherman").

Consider claim 1, Rosen teaches a method for improving utilization of satellite capacity of a satellite system that uses multiple uplink and downlink spot beams (col. 2 lines 19-40), comprising: integrating an area-wide broadcast (fig. 9 zones 31, 33, 35, and 37) downlink beam to be used to support point-to-point transmissions (col. 4 lines 30-41).

Rosen does not explicitly show that downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted.

In the same field of endeavor, Sherman teaches downlink beam to be used to support point-to-point transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted (col. 16 lines 14-32).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, downlink beam to be used to support point-to-point



Art Unit: 2618

transmissions of one or more of the multiple spot beams whose transmission capacity has been exhausted, as taught by Sherman, in order to optimize satellite-cellular service quality and availability while minimizing reductions in network capacity from misallocated channel frequencies.

Consider claim 2, Rosen further teaches allocating a full primary spectrum of one polarization to uplink and downlink spot beams for point-to-point transmissions (col. 4 lines 58-67), and allocating a full primary spectrum of a polarization opposite to the one polarization to the area-wide broadcast downlink beam for broadcast transmissions (col. 4 lines 64-67).

Consider claim 3, Rosen further teaches assigning the full primary spectrum for broadcast transmissions in minimum-resolution broadcast bands (col. 6 line 66 through col. 7 line 2).

Consider claim 4, Rosen further teaches the minimum-resolution broadcast bands are assigned to any and all uplink spot beams in any combination as configured by a network control center (col. 13 lines 47-62).

Consider claim 5, Rosen further teaches each one of the multiple uplink and downlink spot beams can access the full primary spectrum for broadcast transmissions



Art Unit: 2618

in increments of one minimum-resolution broadcast band and can transmit on at least (col. 15 lines 33-58).

***Conclusion***

6. Any response to this action should be mailed to:

Mail Stop\_\_\_\_\_ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



Art Unit: 2618

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Tuan H. Nguyen/  
Examiner  
Art Unit 2618